

# Archives of Case Reports

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Case Report

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[Sleep Disorders and Sleep Studies Case Reports](#)

Sleep disorders represent a significant public health concern due to their widespread prevalence, impact on overall health, and the economic burden they impose. These disorders encompass a broad spectrum of conditions, ranging from insomnia and obstructive sleep apnea (OSA) to narcolepsy, restless legs syndrome (RLS), and parasomnias. They are often associated with comorbidities such as cardiovascular diseases, metabolic dysfunctions, and mental health disorders, making their identification and management critical.

The publication of this work is of high interest as it contributes to the expanding body of literature focused on understanding the complex interplay between sleep disorders and health outcomes. By presenting detailed case reports, this study provides valuable insights into the diagnostic challenges, treatment modalities, and potential avenues for personalized interventions in sleep medicine. Case reports are particularly important in this field as they shed light on unique presentations and rare conditions that might otherwise go unnoticed in large-scale epidemiological studies. From an epidemiological perspective, sleep disorders are highly prevalent globally. According to the World Health Organization (WHO), approximately 30% - 45% of the global population experiences sleep disturbances. Obstructive sleep apnea, for instance, affects nearly 1 billion individuals worldwide, with varying prevalence across age, gender, and geographic regions. Insomnia affects roughly 10% - 30% of adults, with rates as high as 50% - 60% in older populations.

Meanwhile, narcolepsy, though rare, is estimated to affect 1 in 2,000 people in the general population. These statistics underscore the pressing need for enhanced diagnostic methods, improved treatment strategies, and comprehensive patient management. By detailing real-world cases, this publication aims to bridge the gap between clinical observations and broader scientific understanding. The insights gained from these case studies have the potential to inform future research directions, improve clinical practices, and ultimately enhance patient outcomes in sleep medicine.

Sleep disorders affect millions of individuals globally, disrupting physical, mental, and emotional well-being. Conditions such as insomnia, obstructive sleep apnea (OSA), narcolepsy, and restless legs syndrome (RLS) are among the most studied. This paper examines the etiology, diagnosis, and management of sleep disorders, presenting detailed case reports and integrating relevant sleep study findings. Figures such as polysomnography (PSG) outputs and statistical trends provide visual insights into diagnostic and therapeutic interventions. Sleep disorders encompass a wide range of conditions that significantly disrupt sleep quality and overall well-being. Common disorders such as insomnia, obstructive sleep apnea (OSA), narcolepsy, and restless legs syndrome (RLS) affect millions globally, posing risks to physical health, mental stability, and cognitive performance. This study explores the clinical presentation, diagnostic approaches, and management of sleep disorders through the lens of detailed case reports and sleep study data.

Polysomnography (PSG), the gold standard for sleep disorder diagnosis, plays a pivotal role in identifying abnormal sleep patterns, respiratory irregularities, and neural disruptions. Multiple sleep latency tests (MSLT) and actigraphy complement PSG, offering insights into disorders like narcolepsy and circadian rhythm abnormalities. This paper presents three representative case reports: chronic insomnia, severe OSA, and narcolepsy with cataplexy. Each case is analyzed in-depth, highlighting patient history, PSG findings, treatment interventions, and outcomes. For chronic insomnia, cognitive-behavioral therapy for insomnia (CBT-I) and pharmacological intervention resulted in marked improvements in sleep latency and efficiency. In the OSA case, continuous positive airway pressure (CPAP) therapy significantly reduced the apnea-hypopnea index (AHI) and alleviated daytime symptoms. The narcolepsy case demonstrates the efficacy of modafinil and sodium oxybate in managing excessive daytime sleepiness and cataplexy.

Despite advancements, challenges persist in the field, including patient adherence to therapy, accessibility to specialized sleep studies, and the ethical implications of AI-driven diagnostic tools. Future research should focus on scalable, patient-centric approaches and the role of emerging technologies in enhancing diagnostic accuracy and treatment efficacy. This paper aims to contribute to the evolving understanding of sleep disorders, bridging clinical case insights with the broader implications for sleep health and research.

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Research Article

Published Date:-2024-11-18 11:28:09

[Antimicrobial, Antioxidant Activity of Ethyl Acetate Extract of Streptomyces sp. PERM2, its Potential Modes of Action and Bioactive Compounds](#)

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Background: Microorganisms belonging to *Streptomyces* sp. are Gram-positive bacteria known for their unsurpassed capacity for the production of secondary metabolites with diverse biological activities. The aim of this study was to evaluate the antimicrobial and antioxidant properties of ethyl acetate *Streptomyces* sp. PERM2 extract, its potential modes of action and bioactive secondary metabolites.

Results: The ethyl acetate PERM2 extract showed antimicrobial activity more pronounced on both Gram-positive and Gram-negative bacteria and fungi with a Minimum Inhibitory Concentration value (MIC) of 0.5 mg/mL and Minimum Bactericidal Concentration (MBC) of 2 - 4 mg/mL against bacterial pathogens. MIC value against pathogenic fungi was 2 mg/mL and Minimum Fungicidal Concentration (MFC) of 0.01 - 0.05 mg/mL against pathogenic fungi. PERM2 crude extract showed the ability to inhibit bacteria cell wall synthesis at 0.5 and 1 MIC. The extract was found to possess dose-dependent 2,2-Diphenyl-picrylhydrazyl (DPPH) free radical scavenging and Ferric reducing activity. The gas chromatography-mass spectrometry (GC-MS) analysis revealed the presence of three major compounds identified as 9,12-octadecadienoic acid (Z, Z) (29.75%), tridecyl trifluoroacetate (24.82%) and 1-(+)-ascorbic acid 2, 6-dihexadecanoate (22.34%). The liquid chromatography-tandem mass spectrometry (LC-MS/MS) analysis revealed the presence of 22 non-volatile metabolites in PERM2 extract and only the compound 3, 30-O-dimethylellagic acid was identified.

Conclusion: The results of this study indicate that ethyl acetate *Streptomyces* sp. PERM2 extract possesses antibacterial, antifungal, and antioxidant activities; inhibits bacteria cell wall and protein synthesis; and contains significant bioactive secondary metabolites which could be used as an alternative to multi-resistance antibiotics.

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## Case Presentation

Published Date:-2024-11-15 11:25:44

### [Jaw Subluxation as a Complication of Tardive Dyskinesia](#)

Tardive Dyskinesia (TD) is an iatrogenic complication caused by antipsychotic agents and rarely by other anti-depressive/antiepileptic or anti-nausea medication. It is mostly a benign condition with implications regarding esthetic issues but it can also impact social and emotional well-being. We are reporting a case in which severe TD ensued in an elderly lady with newly diagnosed dementia, who presented to the psychiatric ER with a Capgras syndrome and paranoia accompanied by behavioral disturbances. She was treated with 4 consecutive antipsychotic agents (haloperidol, brexpiprazole, risperidone, and olanzapine) due to unresponsive psychosis in conjunction with biperiden and developed a severe case of TD, which was complicated by two successive episodes of jaw subluxation. In spite of the good outcome following the reduction of the subluxation, we emphasize the danger of this rare painful, and bothersome side-effect and recommend how to pharmacologically deal with the TD setting in which it occurred.

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## Case Report

Published Date:-2024-11-11 17:56:34

### [Unlocking the Potential of Multigene Parallel Sequencing: A Concomitant Germline RET and BRCA1 Mutation in a Hereditary Medullary Thyroid Carcinoma](#)

## Short Communication

Published Date:-2024-11-08 17:47:29

### [Changes in Private Psychiatric Outservice Related to SARS-CoV-2 Pandemic](#)

The SARS-CoV-2 pandemic, which began in late 2019, initially manifested with acute respiratory symptoms, including bilateral pneumonia, and later emerged as a systemic disease. This brief report assesses changes in the clinical profiles of psychiatric outpatients before, during, and after the pandemic's most severe periods, focusing on mood, anxiety, and cognitive symptoms. Data from a private psychiatric facility in Rome reveal that both pandemic-related stressors and SARS-CoV-2 infection itself may contribute to enduring affective and cognitive symptoms in both older and younger adult subgroups. Notably, during the pandemic, older patients showed elevated psychopathology scores (BPRS-24) compared to younger individuals. In the post-pandemic period, younger adults exhibited increased positive symptoms on the PANSS Positive subscale, suggesting a gradual worsening in symptoms post-pandemic ( $r = 0.47$ ). Cognitive assessments (MMSE and PM38) further highlighted fluctuating performance over time, with older adults showing two distinct declines during the pandemic and in 2024. This work underscores the importance of sustained mental health interventions to address the pandemic's psychosocial and neuroinflammatory legacy. This perspective also considers new data on the CNS effects of "toxin-like peptides" synthesized by microbiome bacteria.

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[Investigation of the Influence of Environmental Thermal Characteristics on Thermal Modes of Transparent Boxes](#)

This paper presents the results of experiments to investigate the influence of thermal characteristics of the environment on the thermal modes of transparent boxes. To conduct experiments on the non-stationary thermal model of solar greenhouses developed by us, two identical transparent boxes with dimensions of 0.80 x 0.65 x 0.80 m were constructed. The transparent boxes have rectangular shapes. One transparent box has glass walls and the other with polyethylene walls. The influence of the thermal characteristics of the environment and the thermal conditions inside the transparent boxes with film and glass transparent walls are investigated. The experimental results show that at a maximum ambient air temperature of 42 °C on 27.06.2024 at 13:48 hours, the air temperature increases to 10% and 23% in transparent boxes with polyethylene and with glass walls, respectively, and at 05:10 hours, the humidity decreases to 8% and 11%, respectively.

Thus, the influence of the thermal characteristics of the environment on the thermal conditions of transparent boxes with glass walls, at the maximum ambient temperature, is greater by 1.2 times than in transparent boxes with polyethylene walls, and humidity decreases by half.

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**Short Communication****Published Date:-2024-10-24 09:53:55**[Advances in Physiological Research: Consideration on Arterial Hypercapnia in Acute Cardiogenic Pulmonary Edema \(ACPE\)](#)

The causes of hypercapnia in Acute Cardiogenic Pulmonary Edema are still unknown. Our hypothesis recognizes an alteration of the ventilation-perfusion ratio in the apical areas of the lung as the major cause. The redistribution of blood to the apical lung zone in hypertensive pulmonary circulation determines an excess of perfusion compared to ventilation and consequently hypercapnia. Our suggestion might be in favor of Bilevel-PAP over Continuous Positive Airway Pressure (CPAP) as the first line of therapy.

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**Case Report****Published Date:-2024-10-22 14:56:23**[Is Acupuncture Efficient for Treating Long COVID? Case Reports](#)

Long COVID can be defined as a set of symptoms appearing more than 28 days after a documented acute COVID-19. Among them, extreme fatigue and troubles of moods are the most common. To verify that acupuncture can efficiently alleviate long COVID, a chronic disease partly escaping to other treatments, especially fatigue and troubles of mood. To collect data pertaining to the patients included in the study as described in the STROBE guideline. To diagnose the clinical conditions of the patients using the Nan jing in order to choose the meridian and the points to be toned or dispersed depending on the observation of tongue and pulse. Acupuncture can greatly improve the troubles of patients suffering from long COVID after a reduced number of sessions (1 to 4).

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**Research Article****Published Date:-2024-10-21 14:36:29**[The Impact of Globalization on World Nations: A Study on Protection, Welfare, and Producer Gain](#)

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This paper examines the effects of globalization on nations, focusing on economic, social, and cultural dimensions. It analyzes the roles of protectionism and globalization in shaping consumer welfare and producer earnings through qualitative methods and the Customs Union theory framework. The study discusses the benefits and drawbacks of globalization in the context of World Trade Organization (WTO) regulations.

The findings indicate that globalization has intensified financial flows between countries, which can exacerbate economic crises. Countries with abundant human resources can capitalize on the international division of labor to specialize in high-value sectors, while those with limited resources risk falling behind in the digital landscape. This division of labor fosters specialization and improves production efficiency through targeted education.

However, multinational corporations often impede cost-effective production in developing nations, underscoring the necessity to restructure research and development to facilitate technology adoption in underdeveloped areas. This restructuring can help close the technological gap and encourage equitable participation in the global economy.

**Jel code Classification:** D6: Welfare economics, Fo1 Global outlook, F40: General F4: Macroeconomics aspects of international trade and finance

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**Case Report**                      **Published Date:-2024-10-17 16:38:58**

[A Rare Case of Cutaneous Angioleiomyoma: A Case Report](#)

Cutaneous Angioleiomyoma is a very rare benign tumour of which incidence is unknown.

We report a case of a 42-year-old male patient who presented with a symptomless solitary nodule over the left nostril for one and a half years duration.

Complete surgical excision of the tumour was done and the sample was sent for histopathological examination. Diagnosis of this tumour was done on the evidence of histopathological examination with haematoxylin and eosin mounts.

Sometimes achieving the best aesthetically accepted results may be challenging due to the site of involvement.

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**Case Report**                      **Published Date:-2024-10-08 12:33:52**

[A Cutaneous Metastasis of Bladder Cancer: A Case Report](#)

Usually affecting men in the sixth decade bladder cancer is generally revealed by hematuria or lower urinary tract symptoms. Cutaneous metastases are very rare in genitourinary tumors representing only 1.34% of cutaneous metastases of other neoplasms. The presence of cutaneous metastases is associated with a poor prognosis with a median survival of fewer than 12 months.

We reported the case of a 65-year-old man current smoker who presented a cutaneous metastasis of urothelial bladder cancer confirmed after a cutaneous biopsy, palliative chemotherapy was initiated after multidisciplinary staff.

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**Research Article**                      **Published Date:-2024-10-07 12:29:32**

[Forecasting Soil Moisture in Caragana Shrubland Using Wavelet Analysis and NARX Neural Network](#)

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It is important for sustainable use of soil water resource and high-quality development to forecast the soil moisture in forestland of water-limited regions. There are some soil water models. However, there is not the best model to forecast the change of soil moisture in the caragana shrubland. In this paper, the plant water relationship has been investigated at the same time for a long term in the caragana shrubland of semiarid region of the Loess Plateau of China. The data of soil moisture was divided and then NARX neural network was used to build model I and model II. For model I, low frequency component was the input variable, and for model II, low frequency component and high frequency component were predicted. The results showed the average relative error for model I is 3.5% and for model II is 0.3%. The average relative error of predicted soil moisture in 100 cm layer using model II is 0.8%, then soil water content in the 40 cm and 200 cm soil depth is selected and the forecast errors are 4.9% and 0.4%. The results showed that using model II to predict soil water is well. Predicting soil water using model II will be important for sustainable use of soil water resource and high-quality development.

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## Case Report

Published Date:-2024-09-25 10:18:06

### [Advancements in Clinical Research: Phases, Ethical Considerations, and Technological Innovations](#)

**Background:** Clinical research is a vital component of medical advancements, contributing to the discovery of new treatments, procedures, and health interventions. This paper discusses the importance of clinical trials, the structure and phases of trials, ethical considerations in research, and the role of modern technologies in reshaping clinical trials.

**Objective:** This article aims to provide a comprehensive overview of the clinical trial process, ethical compliance, and the integration of technological advancements, with real-world examples and recent studies to support the discussion.

**Methods:** The article provides a descriptive analysis of the different types of clinical research, the various phases of clinical trials, and ethical considerations based on established guidelines such as the Declaration of Helsinki and the Belmont Report. It also examines how recent technological innovations, including AI, wearable devices, and Electronic Health Records (EHRs), have revolutionized the field.

**Results:** The integration of technology into clinical research has resulted in more efficient, data-driven, and patient-centric trials. Ethical compliance, guided by international regulations, remains a critical factor in ensuring patient safety and maintaining public trust in clinical research.

**Conclusion:** The future of clinical research relies heavily on technological innovation and strict adherence to ethical guidelines. As new treatments and therapies emerge, the structure of trials and the responsible use of technology will play an essential role in shaping the future of healthcare.

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## Case Report

Published Date:-2024-09-23 15:14:20

### [Ciliated Hepatic Cyst: Report of a Case and Review of the Literature](#)

The ciliated hepatic cyst of the anterior intestine is a less frequent benign entity that arises from the alteration in the migration of embryological remains. Most of them are found in the left lobe of the liver, especially in segment IV. Its wall is covered by a pseudostratified ciliated columnar epithelium, a layer of connective tissue, smooth muscle, and a surrounding fibrous outer layer. We present the case of a 61-year-old man who, in the context of a scheduled admission for drainage of an intraabdominal abscess, was incidentally discovered to have a hepatic lesion of cystic aspect. The anatomopathological diagnosis was that of a ciliated hepatic cyst. Due to its low frequency in clinical practice (in part due to its incidental character), a review of the case and a review in the literature of the peculiarities of said entity are proposed.

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## Case Report

Published Date:-2024-09-10 11:42:33

### [En Bloc Palmar Desquamation in Extensive Chickenpox](#)

A 25-year-old man presented with fever and rash which progressed to extensive vesicular eruptions all over the body by the 4th day (Figure 1A).

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